by applying the meta-analytic results to U.S. lengths of stay, costs, and practice patterns. We estimated the annual ARI visit rate for the one million member cohort, by setting (inpatient, ICU, outpatient) and ARI diagnosis. **RESULTS:** In the inpatient setting, the costs of procalcitonin -guided care for the one million member cohort was $2,083,545, compared to $2,780,322, resulting in net savings of nearly $700,000 to the IDN for the year 2014. The ICU and outpatient setting, the savings to the IDN were $73,326 and $5,329,824, respectively, summing up to overall net savings of $6,099,927 for the cohort. Results were robust for all ARI diagnoses. For the whole U.S. insured population, procalcitonin-guided care would result in $1.6 billion in savings annually. **CONCLUSIONS:** Our results show substantial savings associated with procalcitonin protocols of ARI across common U.S. treatment settings. These results are robust to changes in key parameters, and the savings can be achieved without any negative impact on treatment outcomes.

PMD55
A MICROCOSTING STUDY OF RADIATION THERAPY IN LOCALIZED PROSTATE CANCER PATIENTS IN A HUNGARIAN TERTIARY ONCOLOGY CENTER
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OBJECTIVES: The purpose of our analysis was to determine the costs of the conventional three-dimensional radiation therapy (3DCRT) and the normal and hypofractionated intensity-modulated radiation therapy (IMRT and HF-IMRT) for the treatment of localized prostate cancer, and to compare the treatment costs with the reimbursement fees. **METHODS:** The cost-analysis was performed with microcosting method based on the data of a Hungarian oncology center from the perspective of the health care provider. We estimated the resource use in each phase of the radiation therapy process through face-to-face interviews with radiation oncologists, radiation therapists and physicists. The average positioning and treatment delivery time were assessed from the data of 100 fractions delivered in 20 patients. A unit cost for each cost component was calculated based on the actual costs retrieved from the accounting system of the oncology center. We assumed the irradiation scheme to use a total of 38 fractions in the 3DCRT and IMRT, and 25 fractions in the hypofractionated scheme. Capital costs were taken into consideration in the cost calculation. Costs were converted to EUR by applying actual exchange rates (1 EUR = 309 HUF). **RESULTS:** Based on our calculations the expected mean cost of patients undergoing 3DCRT, IMRT and HF-IMRT were 2,105 EUR, 3,066 EUR and 2,244 EUR respectively. The current reimbursement fee for 38 and 25 fractions are 3,513 EUR and 2,635 EUR respectively. **CONCLUSIONS:** Although IMRT and HF-IMRT has already been proven to be cost-effective compared to 3DCRT, the current reimbursement fees do not encourage healthcare providers to use the more effective therapy techniques. The revision of intervention codes, DRGs and cost-weights in terms of radiation therapies for prostate cancer is desirable in order to resolve this anomaly.

PMD56
ANALYSIS OF COSTS FOR DIAGNOSIS AND DIFFERENTIAL DIAGNOSIS OF PATIENTS WITH POSSIBLE TEMPOROMANDIBULAR DISORDERS IN UKRANE
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OBJECTIVES: According to a number of publications frequency of complaints on temporomandibular joints (TMJ) ranges from 27 to 76% and is on a third place in modern dentistry after other dental diseases such as caries and its complications and periodontal pathology. The necessity of high-quality, relevant and available for patient diagnosis is increasing. To evaluate and compare the costs for diagnosis of patients with possible TMD from the payer's perspective in the reform period of health care system and implementation of health insurance in Ukraine. **METHODS:** For the diagnosis of TMJ violations such alternative methods may be used: orthopantomography (OPG), zonography (ZG), ultrasonography (USG), 3D computed tomography (3D CT) and magnetic resonance imaging (MRI). From December 2013 to June 2015 122 patients with suspected TMD at Prosthetic Dentistry Department Danylo Halytsky Lviv National Medical University were examined. **RESULTS:** The above mentioned methods singly and in combination were used for diagnosis. The costs of examination according to the average data in private and public clinics in Lviv are: OPG - 5-7 €; ZG - 5-7€, USG - 7-9 €, 3D CT - 18-30 €, MRI - 30-50 €. Resulting 62 OPG, 22 ZG, 54 USG, 20 3D CT and 2 MRI were conducted. Consequently, OPG, ZG and USG are available for most patients, less available is 3D CT. MRI is the most limited method. **CONCLUSIONS:** Such diagnostic methods as OPG, ZG and USG are the most available for patients. They are informative, have no excessive radiation exposure and allow them to re-apply if the forward observation is necessary. In some cases the 3D CT method should be combined with USG, so that complex has a higher cost. MRI is the "gold" standard for diagnosis, but the high cost and features of study may limit its usage.

PMD57
FINDING THE OPTIMAL SCREENING PROGRAM FOR UNKNOWN ATRIAL FIBRILLATION USING SIMULATION MODELS
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OBJECTIVES: The primary objective of this study was to use computer simulations to determine the optimal age for initiation of screening for atrial fibrillation and to evaluate if repeated screening is of additional value. **METHODS:** This analysis was based on a decision-analytic simulation model. More than one billion different designs of screening programs for unknown atrial fibrillation were simulated and analyzed. Widely accepted decision rules for mutually exclusive programs were used to identify optimal designs for screening for unknown atrial fibrillation. **RESULTS:** Costs and effects generated by the 1,073,741,824 possible screening designs was calculated and compared. Of all possible programs, 1,073,741,818 designs were ruled out from the analysis based on dominance, extended dominance or the fact that the program design had an incremental cost of over €100 000 per gained QALY. The remaining six program designs can all be considered cost effective depending on what the health-care decision makers are ready to pay for gaining a quality-adjusted life-year. **CONCLUSIONS:** Based on the results of the simulated screening programs, initiation of screening at the age of 75 with repeated screening at 80 years was found to be the most cost-effective design of a screening program for unknown AF when a QALY is considered to be worth approximately €50,000.

PMD58
HIGHER ACCURACY OF BLOOD GLUCOSE MONITORING SYSTEMS IN TYPE 2 INSULIN TREATED DIABETIC PATIENTS IN SPAIN: CLINICAL AND ECONOMIC IMPACT
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OBJECTIVES: Accuracy standards of blood glucose monitoring systems have been recently revised. The revised standard, ISO 15197:2013, tightens the range of results considered accurate from a 20% deviation from the reference value to a 15%. The objective of this analysis is to evaluate the economic value of accuracy differences between ISO compliant and non ISO compliant meters in Spain, using a modelling approach. **METHODS:** Clinical and economic outcomes were simulated over a 20-years time horizon by means of a Markov model. 4 health states were considered, including no event, non-fatal hypoglycemia, fatal hypoglycemia and death due to other causes. Model inputs were derived from published sources. Inputs included Spanish Type 2 diabetes mellitus (T2DM) insulin-treated population size, risk of severe hypoglycemic event (SHE) due to meter error, cost per SHE and rates of death due to SHE and other causes. **RESULTS:** A reduction of the inaccuracy range from 20% to 15% would translate into a 25.5% reduction of SHE. The incremental cost per SHE avoided would be -2,795€. The reduction in SHE would lead to cost savings of 135€ per T2DM insulin-treated patient and year. Considering there are 379,728 T2DM insulin-treated patients in Spain, the total cost savings would exceed 51€ million, meaning 0.9% of total Spanish diabetes expenditure and 0.07% of total Spanish health care expenditure. **CONCLUSIONS:** Self-monitoring blood glucose is a key component of diabetes management as it is often used in clinical decision making. It is therefore critical that these devices are accurate and precise. The results of this study might encourage the conversion of all patients using non ISO compliant meters to ISO compliant meters in the European Union, where ISO 15197:2013 will become mandatory in May 2016. It might also enhance stricter standards in countries where these requirements will not be mandatory.

PMD59
HEXAMINOLEVULINATE BLUE-LIGHT FLEXIBLE CYSTOSCOPY IN ADDITION TO STANDARD WHITE-LIGHT CYSTOSCOPY IN THE FOLLOW-UP OF NON-MUSCLE INVASIVE BLADDER CANCER: COST-CONSEQUENCES DURING OUTPATIENT SURVEILLANCE IN SWEDEN
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OBJECTIVES: Bladder cancer (BC) can be life-long and requires intensive and routine monitoring and treatment, which makes it costly and impacts on patients' health perception. Hexaminolevulinate is a photosensitizing agent selectively absorbed by cancer cells which light up in red when illuminated with blue light, approved for improved detection and management of BC. The objective was to evaluate the cost-consequences of using Hexaminolevulinate-guided blue-light flexible-cystoscopy (HBLFC) as an adjunctive to white-light flexible-cystoscopy (WLFC), compared with WLFC alone, in the detection of non-muscle invasive BC (NMIBC) one year after diagnosis and recurrence. **METHODS:** A cost-consequence model using a combination of a decision tree and Markov cohort state transition model structure was developed using a Swedish setting, Swedish guidelines and a hospital perspective. 231 patients were followed in an outpatient setting after diagnosed with NMIBC and successfully treated with an initial transurethral resection of bladder tumour (TURBT).The 231 patients were distributed across all risk groups. The model captured costs (2014 SEK) of surveillance and treatment of recurrence and progression over a 5-year period using 3-month-cycles. **RESULTS:** The total cost over five years was marginally higher, 1.6%, for HBLFC (SEK 14,033,864) compared to WLFC (SEK 13,815,155) although cost-saving from year 2. HBLFC resulted in reduced resource demand versus the comparator (TURBTs: 121.4 vs 126.1; cystectomies: 56.3 vs 58.8; operating room [OR] time [hours]: 428.9 vs 447.4; bed days: 18.7 vs 19.5). High-risk patients represented the largest share of the costs but also the main benefits in clinical outcomes. **CONCLUSIONS:** HBLFC was cost neutral over 5 years and reduced the number of bed days and OR time compared to WLFC alone, resulting mainly from fewer TURBTs and cystectomies. The greatest overall benefits were seen among high-risk patients, but other risk-groups are likely to benefit as well. Future model development will include quality-of-life data.

PMD60
A DECISION TREE MODEL TO EVALUATE THE COSTS AND CONSEQUENCES OF USING DUAL ANTIBIOTIC BONE CEMENT VERSUS SINGLE ANTIBIOTIC BONE CEMENT IN HIP HEMIARTHROPLASTY
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OBJECTIVES: The use of antibiotic-laden bone cements in surgical operations of the hip aims to help prevent surgical site infections (SSIs) and avoid their negative consequences. The objective of this study was to evaluate the costs and consequences for the NHS in England and Wales associated with the use of a dual antibiotic cement (COPAL® G+C) compared to a single antibiotic cement (PALACOS® R+G) in the treatment of fractured neck of femur with hemiarthroplasty. **METHODS:** A de novo decision tree model was developed, incorporating relevant clinical events of 30-day mortality, superficial and deep SSIs, and revision procedures, over a 1 year time horizon. Probabilities were informed by published literature and results of a key randomised controlled trial comparing the two interventions. Costs were sourced